Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A process to damp and filter the amplitude of mechanically-originated vibrations of a structure to be uncoupled, wherein an incident vibratory wave is filtered with damping by absorbing a filtered vibratory wave transmitted over a frequency and mechanical load amplitude that is applied to the structure; and

a plurality of suspension assemblies are ~~each~~ all mounted in series between two elements of the structure with a damping device mounted in parallel to ~~the~~ each suspension assembly of said plurality of suspension assemblies.

2. (Canceled)

3. (Previously Presented) The process according to Claim 1, wherein the damping device comprises an internal geometry that provides a deflection, and if required, an amplification and location of the mechanically-originated vibrations to ensure damping of the vibratory response of the structure, and the series suspension comprises a rigid static support function, and a dynamic filtering function with variable characteristics based on the level of the load that is applied to the structure.

4. (Currently Amended) A device to filter and damp the vibrations between a first element subjected to an incident vibratory wave and a second element radiating a filtered vibratory wave, wherein the device comprises: a plurality of interface structures ~~each~~all mounted in series between the first and second elements ~~that transfers~~, that transfer vibratory energy, each of the plurality of interface structures constituted by (1) at least one elastic component and (2) at least one dissipative component attached in parallel to the elastic ~~component~~component, to filter and dampen ~~of~~ the incident vibratory wave over a frequency

and a mechanical load amplitude that is applied to ~~the~~ each interface structure of said plurality of interface structures.

5. (Previously Presented) The device according to Claim 4, wherein the dissipative component comprises two separate rigid frames that provide deflection functions, if required, by a lever arm effect,

wherein amplification of the vibratory energies generated by the at least one elastic component towards a dissipative material is damped by the dissipative component.

6. (Previously Presented) The device according to Claim 4, wherein the dissipative component comprises:

a linear profile and an assembly of rigid aligned frames,

wherein the rigid aligned frames are attached to the at least one elastic component, or to any other vibrating structure, and are independent of one another such that the relative movements of each rigid aligned frame, corresponding to an amplification by lever arm effect of the vibratory response of the elastic component, is transmitted by the end of the rigid aligned frame to a dissipative material onto which a stress plate is mounted to transfer the vibratory energy to the assembly of rigid aligned frames.

7. (Withdrawn) The device according to Claim 4, wherein the dissipative component comprises:

an element attached to the dissipative component, or to any other vibrating structure, such that the vibratory waves that are deflected, located and amplified by an internal structure of the device are transmitted, by an upper face of the element to a dissipative material that is stressed on an upper face of the dissipative material by a plate that transfers vibratory energies towards an assembly of rigid frames via the dissipative material.

8. (Withdrawn) The device according to Claim 4, wherein the dissipative component is rotational and comprises an assembly of rigid frames, spaced cyclically around

a central part, attached at one end to the elastic component, or to any other vibratory structure, and unattached at the another end so that the relative movements of the assembly of rigid frames are transmitted to dissipative materials, and attached at the other end to a stress plate that, through the dissipative materials, retains the assembly of rigid frames.

9. (Withdrawn) The device according to Claim 4, wherein the elastic component comprises an assembly of two rotational sub-assemblies that are elastic leaf springs, and at least one end of the elastic component has an evolutive contact surface, wherein the assembly of two rotational sub-assemblies has a zone in which the at least one dissipative component is inserted.

10. (Withdrawn) The device; according to Claim 9, wherein the elastic leaf springs have a potentially non-linear stiffness conferred by an evolutive geometric profile of the elastic leaf springs to ensure a gradual contact of a first leaf spring with a matching profile of a second leaf spring, to provide the evolution of the filtering frequency and a controlled relative motion space of the leaf springs according to a dynamic load that is applied.

11. (Withdrawn) The device according to Claim 4, wherein the interface structure is rotational and comprises a first elastic leaf spring rigidly connected to the second element and a second elastic leaf spring rigidly connected to the first element, the leaf springs being connected together at their free ends and wound around a ring, using layers of dissipative materials, and coming into direct contact according to a dynamic load that is applied to provide a non-linear filtering and damping function.

12. (Withdrawn) The device according to Claim 11, wherein the first and second elastic leaf springs have a potentially non-linear stiffness to provide, depending on the dynamic load that is applied, the evolution of the frequency and a controlled relative motion space of the first and second elements.

13. (Previously Presented) The device according to Claim 4, wherein the dissipative material converts vibratory energy into heat energy by friction between materials or with viscoelastic materials, electrical energy with piezoelectric materials, magnetic energy with magnetostrictive materials, or another form of energy.

14. (Previously Presented) A filtering and damping device according to Claim 4, wherein the elastic component has at least two dimensions and is formed by assemblies of beams, straight or curved bars, solid volumes, plane plates or more complex shapes, and elastic properties of the elastic component stem from elastic materials that are metallic, homogenous, isotropic or anisotropic.

15. (Withdrawn) The device according to Claim 7, wherein the element comprising the dissipative component of surface profile, integrates the properties of thermal and acoustic insulation comprising cellular foam, or cork-based composites, enabling the dissipative component to preserve damping efficiency over a wide temperature range and to possess, in addition, the intrinsic performances of an acoustic screen and thermal insulator.

16. (Previously Presented) The process according to Claim 1, wherein the damping device is of the parallel type and has an internal geometry able to provide a deflection, and if required, an amplification and location of the vibrations to ensure damping of the vibratory response of the structure, and wherein the series suspension concurrently has a rigid static support function, and a dynamic filtering function with variable characteristics based on the level of the load that is applied to the structure.

17. (Previously Presented) The device according to Claim 6, wherein the elastic component has at least two dimensions and is formed by assemblies comprising beams, straight or curved bars, solid volumes, plane plates or more complex shapes, and

the elastic component has elastic properties that stem from elastic materials that are metallic, homogeneous, isotropic or anisotropic.

18. (Withdrawn) The device according to Claim 8, wherein the elastic component has at least two dimensions and may be formed by assemblies comprising beams, straight or curved bars, solid volumes, plane plates or more complex shapes, and

wherein the elastic component has properties that stem from elastic materials that are metallic, homogeneous, isotropic or anisotropic.

19. (Withdrawn) The device according to Claim 10, wherein the elastic component has at least two dimensions and may be formed by assemblies comprising beams, straight or curved bars, solid volumes, plane plates or more complex shapes, and

wherein the elastic component has properties that stem from elastic materials that are metallic, homogeneous, isotropic or anisotropic.

20. (Withdrawn) The device according to Claim 12, wherein the elastic component has at least two dimensions and may be formed by assemblies comprising beams, straight or curved bars, solid volumes, plane plates or more complex shapes, and

wherein the elastic component has elastic properties that stem from elastic materials that are metallic, homogeneous, isotropic or anisotropic.